

REMARKS

INTRODUCTION

Claims 1-19 were previously pending.

Claims 15 and 17 have been allowed.

Claims 18 and 19 have been cancelled.

Claims 2-6, 8, and 10-12 were objected to as dependent on rejected claims.

Claims 1, 7, 9, 13, 14, and 16 stand rejected.

Claims 1-3, 5, 7-11, 13, and 16 have been amended.

Claims 1-17 are pending and under consideration.

No new matter is being presented, and approval and entry are respectfully requested.

OBJECTED-TO CLAIMS DRAFTED IN INDEPENDENT FORM

Objected-to claims 2, 3, 8, 10, and 11 have been drafted in independent form.
Withdrawal of the objection of claims 2-6, 8, and 10-12 is respectfully requested.

REJECTIONS UNDER 35 USC § 102

In the Office Action, at pages 2-3, claims 1, 7, 9, 13-14, and 16 were rejected under 35 U.S.C. § 102 as anticipated by Takahashi. This rejection is traversed and reconsideration is requested.

TAKAHASHI LACKS REQUEST WITH BANDWIDTH INFORMATION OF MULTIPLE PATHS

Claims 1 and 9 recite a "request message including bandwidth information for a plurality of paths". Claim 7 recites a request message including "bandwidth information for the multiple paths". The rejection cited Takahashi's ATM switching apparatus, which offers SVC services. In Takahashi, a SETUP message contains Peak Cell Rates (PCRs), each of which is one of the ATM traffic descriptor information elements. However, the PCRs relate to *one UBR connection*

(*path*). Therefore, Takahashi does not discuss a request message that includes bandwidth information for multiple paths, as recited in claims 1, 7, and 9.

Withdrawal of the rejection of claims 1, 7, and 9 is respectfully requested.

TAKAHASHI LACKS REQUEST WITH A NUMBER (QUANTITY) OF PATHS

Claim 13 recites "a number of paths set in the request message for the first path". Claim 14 recites "a request message for a first path from the subscriber to the switching system, in which a number of paths required to provide the service for a subscriber is set". The rejection refers to the SETUP message of Takahashi. However, the SETUP message of Takahashi contains a called party number (i.e. identifier or address), which is different than a number of paths (e.g. a quantity of channels). Therefore, Takahashi does not teach the request message of claims 13 and 14. And, lacking the necessary information, Takahashi cannot teach determining whether a number of request messages received from the same subscriber reaches *a number of paths set in the request message for the first path*.

Withdrawal of the rejection of claims 13 and 14 is respectfully requested.

CLAIM 16

Claim 16 recites "sending 7a request message *from the subscriber* to the switching system to set, in order of large bandwidth to small bandwidth, the various bandwidth which correspond to multiple paths ..." Takahashi discusses an ATM switching apparatus, not a subscriber, sending an IAM to a facing node (another ATM switching apparatus).

Withdrawal of the rejection of claim 16 is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

on February 6, 2003
STAAS & HALSEY
By: Maomi Anderson
Date: February 6, 2003



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please CANCEL claims 18 and 19.

Please AMEND the claims in accordance with the following:

1. (ONCE AMENDED) A path setting device to secure bandwidth for multiple paths to provide a service from a service provider to a subscriber, comprising:

means for determining whether a received message is a request message for a first path, the request message including [requested] bandwidth information for a plurality of paths set for the service required by the subscriber; and

means for securing a bandwidth based on the [requested] bandwidth information set in the request message for the first path between the service provider and the subscriber in response to receiving the request message for the first path.

2. (ONCE AMENDED) A path setting device [as recited in claim 1, further] to secure bandwidth for multiple paths to provide a service from a service provider to a subscriber, comprising:

means for determining whether a received message is a request message for a first path, the request message including bandwidth information for a plurality of paths set for the service required by the subscriber;

means for securing a bandwidth based on the bandwidth information set in the request message for the first path between the service provider and the subscriber in response to receiving the request message for the first path;

means for calculating a bandwidth required for all paths set to provide the service for a subscriber based on the requested bandwidth information set in the request message for the first path from the subscriber;

means for comparing the calculated bandwidth to an available bandwidth between the service provider and the subscriber;

means for securing the calculated bandwidth if the calculated bandwidth is less than or equal to the available bandwidth;

means for setting the first path between the service provider and the subscriber in response to the request message for the first path; and

means for notifying that it is impossible to set a path to the subscriber if the calculated bandwidth is larger than the available bandwidth.

3. (ONCE AMENDED) A path setting device [as recited in claim 1, further] to secure bandwidth for multiple paths to provide a service from a service provider to a subscriber, comprising:

means for determining whether a received message is a request message for a first path, the request message including bandwidth information for a plurality of paths set for the service required by the subscriber;

means for securing a bandwidth based on the bandwidth information set in the request message for the first path between the service provider and the subscriber in response to receiving the request message for the first path;

means for determining whether the received message is a following request message for a remaining path in which information identifying the request message for the first path is set; and

means for setting the remaining path between the service provider and the subscriber in response to the following request message for the remaining path.

4. (AS UNAMENDED) A path setting device as recited in claim 3, wherein the information identifying the request message is a call number.

5. (ONCE AMENDED) A [switching system] path setting device as recited in claim 2, further comprising

means for determining whether the received message is a following request message for a remaining path in which information identifying the request message for the first path is set; and

means for setting the remaining path between the service provider and the subscriber in response to the following request message for the remaining path.

6. (AS UNAMENDED) A path setting device as recited in claim 5, wherein the

information identifying the request message is a call number.

7. (ONCE AMENDED) A path setting control method of securing bandwidth for multiple paths to provide a service from a service provider to a subscriber via a switching system, comprising:

sending a request message for a first path from the subscriber to the switching system, the request message including [requested] bandwidth information for [setting each of] the multiple paths to provide the service for a subscriber; and

securing a bandwidth based on the [requested] bandwidth information in the request message for the first path between the service provider and the subscriber when the request message for the first path is received at the switching system.

8. (ONCE AMENDED) A path setting control method [as recited in claim 7, further] of securing bandwidth for multiple paths to provide a service from a service provider to a subscriber via a switching system, comprising:

sending a request message for a first path from the subscriber to the switching system, the request message including bandwidth information for the multiple paths to provide the service for a subscriber;

securing a bandwidth based on the [requested] bandwidth information in the request message for the first path between the service provider and the subscriber when the request message for the first path is received at the switching system

setting the first path in response to the request message for the first path between the service provider and the subscriber; and

setting a remaining path in response to the following request message for the remaining path between the service provider and the subscriber.

9. (ONCE AMENDED) A switching system for setting multiple paths for a service provided from a service provider to a subscriber, comprising:

an extraction device to extract messages from a subscriber;

a message determination device to determine whether the message extracted by the message extraction device is a request message for a first path between the service provider and the subscriber, the request message including bandwidth information for a plurality of paths

for the service; and

a bandwidth securing and processing device to secure a bandwidth based on requested bandwidth information set in the request message in response to receiving the request message for the first path.

10. (ONCE NAMENDED) A switching system [as recited in claim 9, further] for setting multiple paths for a service provided from a service provider to a subscriber, comprising:

an extraction device to extract messages from a subscriber;

a message determination device to determine whether the message extracted by the message extraction device is a request message for a first path between the service provider and the subscriber;

a bandwidth securing and processing device to secure a bandwidth based on requested bandwidth information set in the request message in response to receiving the request message for the first path; and

a presumed bandwidth calculating device to calculate a presumed bandwidth for each respective path based on the requested bandwidth information set in the request message, and to calculate a total presumed bandwidth based on the presumed bandwidths.

11. (ONCE AMENDED) A switching system [as recited in claim 9] for setting multiple paths for a service provided from a service provider to a subscriber, comprising:

an extraction device to extract messages from a subscriber;

a message determination device to determine whether the message extracted by the message extraction device is a request message for a first path between the service provider and the subscriber; and

a bandwidth securing and processing device to secure a bandwidth based on requested bandwidth information set in the request message in response to receiving the request message for the first path, wherein said bandwidth securing and processing device compares the bandwidth to the available bandwidth, and secures the bandwidth when the bandwidth is less than or equal to the available bandwidth.

12. (AS UNAMENDED) A switching system as recited in claim 10, wherein said bandwidth securing and processing device compares the total presumed bandwidth to the

means for sending the connection message to the switching system in response to receiving a following request message for another path from the subscriber.

16. (ONCE AMENDED) A path setting control method of setting multiple paths for a service provided from service provider to a subscriber via a switching system, comprising:

sending a request message from the subscriber to the switching system to set, in order of large bandwidth to small bandwidth, the various bandwidth which correspond to multiple paths required to provide the service; and

securing the bandwidth required between the service provider and the subscriber in order of large bandwidth to small bandwidth in response to the request message.

17. (AS UNAMENDED) A subscriber terminal in a network which is provided a service via a switching system using multiple paths from a service provider, comprising:

a path selecting device to select an unconnected path having a bandwidth which is largest among paths to provide a requested service;

a message transmitting device to transmit a request message to set the path selected by said path selecting device to the switching system; and

a received message processing device to determine whether there are any paths which have to be set, and to instruct the path selecting device to select the path having the largest bandwidth among the remaining paths to provide the service when there is any path which has to be set.

18. CANCELLED.

19. CANCELLED.